

**SELF-TEACHING SOFTWARE FOR THE
ZX81
AND TIMEX SINCLAIR 1000**



MATHEMATICS 1

ADDITION • SUBTRACTION • ADDITION • SUBTRACTION

A complete arithmetic program for children

ages 5 to 7

INSTRUCTIONS

HOW TO USE THIS TAPE.

1. **LOAD** "I" (short for index). The index will then appear automatically in about 30 seconds.
2. **DECIDE** which program you want to use and load it by title. (Example LOAD "ADD 1")
3. **DO** the lesson. Each lesson is self-guiding and complete.

HOW TO FIND THE PROGRAM YOU WANT.

1. There are 8 lessons on each side of each tape, (4 sides, 32 lessons).
2. Run the tape on FAST FORWARD to approximately where the lesson is located. (Lesson 1 will be near the start of the tape, while lesson 8 will be near the end.)
3. Play the tape. You will hear a strange, high pitched garble (that is a program). Soon you will hear a bell tone. A voice will tell you which program is next.
4. If it's the one you want, connect the tape recorder to your computer (ear to ear) and load the lesson.
5. If it's not the one you want, you will know in which direction to run the tape (fast forward or rewind) to get to the lesson you want.

EVERY LESSON IS INTRODUCED BY A BELL TONE AND A VOICE STATEMENT OF ITS TITLE.

SCREEN PATTERNS WHEN LOADING.

Every lesson uses our special Fast Load system enabling 16k lessons to be loaded in about two minutes. These are the patterns you will see while loading:

1. regular load pattern for about 15 seconds: that is broad black bands running horizontally on your screen.
2. narrow white bands separating broader bands which are filled with short grey lines broken by short black streaks.
3. After a successful load, the lesson will start automatically.

NOTE:

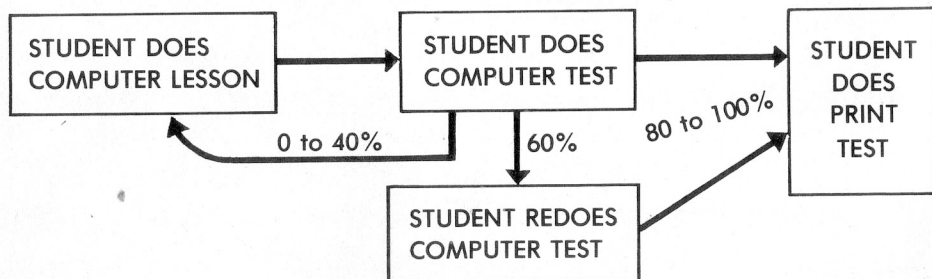
1. Fast Load programs should be loaded at about $\frac{3}{4}$ the volume you would normally use. Turn your tape recorder volume setting to about $\frac{3}{4}$ of the volume you would normally use.
 2. If you experience any difficulty loading a lesson, it is most likely the volume setting. Fast Load programs send out very strong signals. Adjust the volume setting on your tape recorder until you find the ideal one for your set up.
-

HOW DO THESE LESSONS WORK?

These math lessons follow a set pattern designed to take full advantage of the knowledge the student brings to the computer, as well as the ability of the computer to teach patiently. Within each lesson there is an introduction, a statement of the aim of the lesson, the lesson, and a test and evaluation of the lesson taught.

A TYPICAL LESSON

1. The student "signs up" with the computer.
2. The computer shows the student the type of problem to be learned in this lesson.
3. The student has the option of trying the problem on his/her own or allowing the lesson to continue.
4. The problem is taught through interaction between the child and the computer.
5. Practice problems are done by the student with computer guidance. The amount of computer guidance diminishes as the lesson progresses.
6. The student is tested on the skill.
 - 0 to 40% — student redoes the lesson
 - 60% — student redoes the test
 - 80 to 100% — student sent to workbook for print style test



MATHEMATICS I

INDEX OF ADDITION SKILLS

SIDE A

LOAD	SKILL	OBJECTIVE
"ADD 1"	$\begin{array}{r} 4 \\ +3 \\ \hline \end{array}$	ADDITION FACTS TO 10
"ADD 2"	$\begin{array}{r} 9 \\ +7 \\ \hline \end{array}$	ADDITION FACTS TO 18
"ADD 3"	$\begin{array}{r} 32 \\ +14 \\ \hline \end{array}$	2 DIGIT + 2 DIGIT: 2 DIGIT ANSWERS: NO R
"ADD 4"	MISSILES	DRILL & REINFORCE OBJECTIVES
"ADD 5"	$\begin{array}{r} 41 \\ +73 \\ \hline \end{array}$	2 DIGIT + 2 DIGIT: 3 DIGIT ANSWERS: NO RENAMING
"ADD 6"	$\begin{array}{r} 341 \\ +53 \\ \hline \end{array}$	3 DIGIT + 2 DIGIT: 3 DIGIT ANSWERS: NO RENAMING
"ADD 7"	$\begin{array}{r} 415 \\ +723 \\ \hline \end{array}$	3 DIGIT + 3 DIGIT: 3 & 4 DIGIT ANSWERS: NO RENAMING
"ADD 8"	TIC-TAC-TOE	DRILL & REINFORCE OBJECTIVES

SIDE B

"ADD 9"	2, 4, 6, __, __	NUMBER PATTERNS
"ADD 10"	$7 + ? = 15$	MISSING ADDENDS
"ADD 11"	$4 > 3$ $3 < 4$	* GREATER THAN: LESS THAN
"ADD 12"	ROAD RACE	DRILL & REINFORCE OBJECTIVES
"ADD 13"	$8 + 4 \square 10 + 4$	EQUALITIES & INEQUALITIES
"ADD 14"	$8 + 4 = 10 +$	SOLVING EQUATIONS
"ADD 15"	$24 = 2 \text{ TENS} +$ 4 ONES	EXPANDED NOTATION
"ADD 16"	DARTS	DRILL & REINFORCE OBJECTIVES

MATHEMATICS I

INDEX OF SUBTRACTION SKILLS

SIDE A

LOAD	SKILL	OBJECTIVE
"SUB 1"	$\begin{array}{r} 8 \\ -2 \\ \hline \end{array}$	SUBTRACTION FACTS TO 10
"SUB 2"	$\begin{array}{r} 15 \\ -6 \\ \hline \end{array}$	SUBTRACTION FACTS TO 18
"SUB 3"	$\begin{array}{r} 46 \\ -25 \\ \hline \end{array}$	2 DIGIT - 2 DIGIT: NO RENAMING
"SUB 4"	HANGMAN	DRILL & REINFORCE OBJECTIVES
"SUB 5"	$\begin{array}{r} 546 \\ -23 \\ \hline \end{array}$	3 DIGIT - 2 DIGIT: NO RENAMING
"SUB 6"	$\begin{array}{r} 897 \\ -156 \\ \hline \end{array}$	3 DIGIT - 3 DIGIT: NO RENAMING
"SUB 7"	$\begin{array}{r} 26 \\ -9 \\ \hline \end{array}$	2 DIGIT - 1 DIGIT: RENAMING TENS
"SUB 8"	ALIENS	DRILL & REINFORCE OBJECTIVES

SIDE B

"SUB 9"	11, 9, 7, __, __	NUMBER PATTERNS
"SUB 10"	$9 - ? = 2$	MISSING NUMBERS
"SUB 11"	$\begin{array}{r} 9 \\ -2 \\ \hline ? \end{array} \quad \begin{array}{r} ? \\ -7 \\ \hline 2 \end{array}$	ADDITION: SUBTRACTION RELATIONSHIP
"SUB 12"	MISSILES	DRILL & REINFORCE OBJECTIVES
"SUB 13"	$6 - 3 = ?$	HORIZONTAL SUBTRACTION
"SUB 14"	$6 - 3 = 7 - ?$	EQUATIONS
"SUB 15"	USE OF <, >, and =	EQUALITIES & INEQUALITIES
"SUB 16"	TIC-TAC-TOE	DRILL & REINFORCE OBJECTIVES

FOLLOW THE MONKEY!

Do this page after computer lesson "ADD 1".

Do these problems. Shade in the answers in the shade-in puzzle. Where is the monkey going?

$$\begin{array}{r} 1. \quad 4 \\ + 3 \\ \hline 7 \end{array}$$

$$\begin{array}{r} 2.6 \\ +2 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 5 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 4 \\ + 2 \\ \hline \end{array}$$

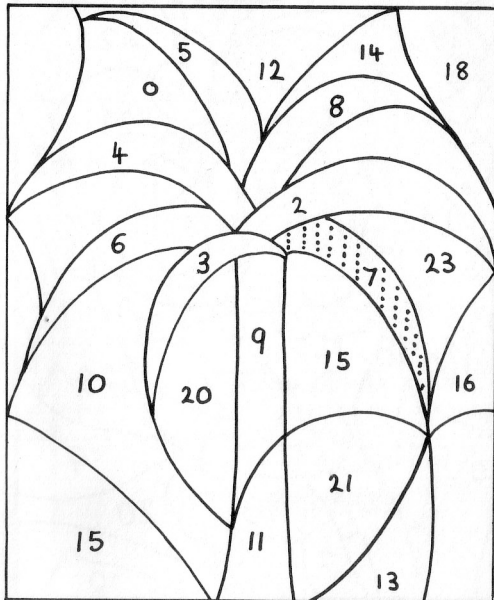
$$\begin{array}{r} 4. \quad 2 \\ + 1 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 0 \\ + 2 \\ \hline \end{array}$$

$$7. \quad 1 + 4$$

$$\begin{array}{r} 8. \quad 3 \\ + 1 \\ \hline \end{array}$$

SHADE-IN PUZZLE



I SWING
HERE.

Next time do computer lesson "ADD 2".

WHO'S HIDING?

Do this page after computer lesson "ADD 2".

Do these problems. Shade in the answers in the shade-in puzzle. Who's hiding?

$$\begin{array}{r} 1. \quad 9 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 8 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 6 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 8 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 7 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 7 \\ + 9 \\ \hline \end{array}$$

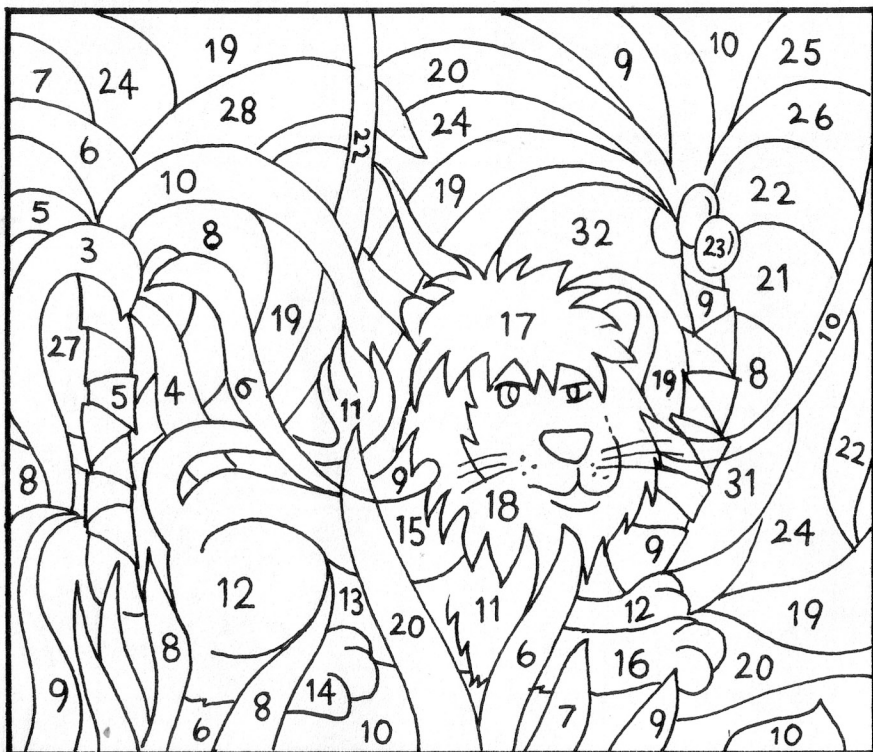
$$\begin{array}{r} 7. \quad 6 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 4 \\ + 8 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 9 \\ + 8 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 9 \\ + 9 \\ \hline \end{array}$$

SHADE-IN PUZZLE



Next time do computer lesson "ADD 3".






MAGIC NUMBERS

Do this page after computer lesson "ADD 4".

Add across and add down. Then add those answers to get the magic numbers.

1.

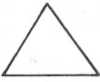
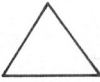



16	21
12	30

 $=$

 $+$

 $=$

 $+$

 $=$


**MAGIC
NUMBER**

2.






23	31
12	11

 $=$

 $+$

 $=$

 $+$

 $=$


**MAGIC
NUMBER**

3.

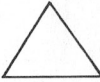
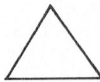



25	12
11	11

 $=$

 $+$

 $=$

 $+$

 $=$


**MAGIC
NUMBER**

4.

14	13
12	20

 $=$

 $+$

 $=$

 $+$

 $=$


**MAGIC
NUMBER**

Next time do computer lesson "ADD 5".

CROSS-NUMBER PUZZLE

Do this page after computer lesson "ADD 5".

Do these problems. Then write the answers in the correct spaces in the cross-number puzzle.

ACROSS

$$\begin{array}{r} 1. \ 30 \\ + 81 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \ 20 \\ + 90 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \ 83 \\ + 62 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \ 41 \\ + 80 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \ 92 \\ + 95 \\ \hline \end{array}$$

DOWN

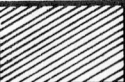
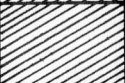
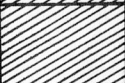

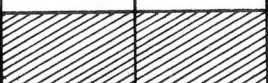
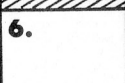
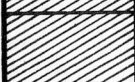
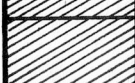
$$\begin{array}{r} 1. \ 41 \\ + 70 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \ 76 \\ + 72 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \ 94 \\ + 63 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \ 51 \\ + 50 \\ \hline \end{array}$$

CROSS-NUMBER PUZZLE

1. $\begin{smallmatrix} \vdots \\ \vdots \\ \vdots \end{smallmatrix}$	2. $\begin{smallmatrix} \vdots \\ \vdots \end{smallmatrix}$	3. $\begin{smallmatrix} \vdots \\ \vdots \end{smallmatrix}$	
4.			
5.			
			6.
	7.		
	8.		

Next time do computer lesson "ADD 6".

TIC-TAC-TOE

Do this page after computer lesson "ADD 6".

You be X's. I will be O's. Do each problem. Put X's and O's into the right spaces. Good luck!

$$\begin{array}{r} 1. \quad 332 \\ + 55 \\ \hline 387 \end{array}$$

X

$$\begin{array}{r} 2. \quad 512 \\ + 12 \\ \hline \end{array}$$

O

$$\begin{array}{r} 3. \quad 462 \\ + 27 \\ \hline \end{array}$$

X

$$\begin{array}{r} 4. \quad 628 \\ + 71 \\ \hline \end{array}$$

O

$$\begin{array}{r} 5. \quad 841 \\ + 23 \\ \hline \end{array}$$

X

$$\begin{array}{r} 6. \quad 217 \\ + 51 \\ \hline \end{array}$$

O

$$\begin{array}{r} 7. \quad 313 \\ + 33 \\ \hline \end{array}$$

X

$$\begin{array}{r} 8. \quad 845 \\ + 54 \\ \hline \end{array}$$

O

$$\begin{array}{r} 9. \quad 122 \\ + 63 \\ \hline \end{array}$$

X

TIC-TAC-TOE

524	864	185
489	387	699
346	268	899

Next time do computer lesson "ADD 7".

TONGUE TWISTER

Do this page after computer lesson "ADD 8".

Do these problems. Use each answer to find the correct words in the "WORD BOX". Fill in the words in the tongue twister. Can you say the tongue twister 5 times fast? Try!

$$\begin{array}{r} 1. \quad 542 \\ + 713 \\ \hline 1255 \end{array}$$

$$\begin{array}{r} 2. \quad 364 \\ + 814 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 834 \\ + 205 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 606 \\ + 633 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 613 \\ + 814 \\ \hline \end{array}$$

WORD BOX

1,039 = SINGS

1,427 = SONGS

1,255 = SILLY

1,047 = SEA

1,178 = SALLY

1,342 = SHELLS

1,239 = SILENT

1,682 = SELLS

TONGUE TWISTER

SILLY

1

2

3

4

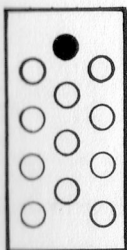
5

PATTERNS

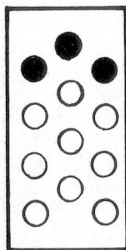
Do this page after computer lesson "ADD 9".

Write the next two numbers in each pattern.
Color in the dots to show the pattern.

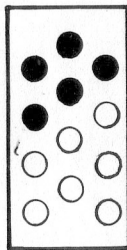
1.



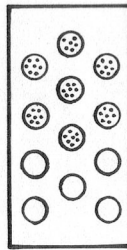
1



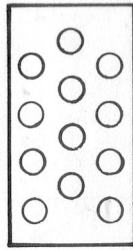
3



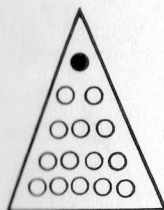
5



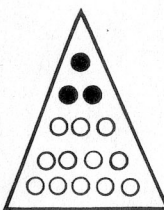
7



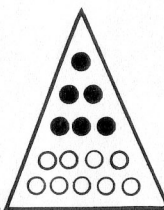
2.



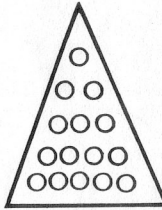
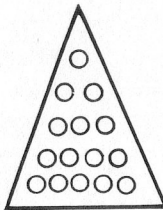
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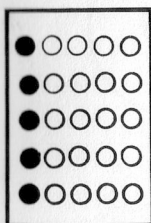
3



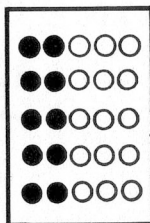
6



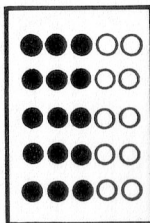
3.



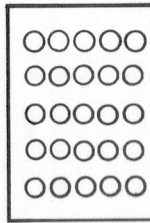
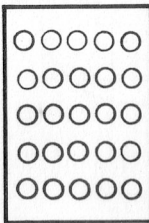
5



10



15



Next time do computer lesson "ADD 10".

FIND THEM!

Do this page after computer lesson "ADD 10".

Find the missing numbers in the big circle.
Finish each adding problem.

9.
$$\begin{array}{r} 5 \\ + \square \\ \hline 10 \end{array}$$

1.
$$\begin{array}{r} 6 \\ + \square \\ \hline 8 \end{array}$$

2.
$$\begin{array}{r} 8 \\ + \square \\ \hline 17 \end{array}$$

3.
$$\begin{array}{r} 3 \\ + \square \\ \hline 11 \end{array}$$

4.
$$\begin{array}{r} 9 \\ + \square \\ \hline 12 \end{array}$$

5.
$$\begin{array}{r} 7 \\ + \square \\ \hline 13 \end{array}$$

6.
$$\begin{array}{r} 7 \\ + \square \\ \hline 14 \end{array}$$

7.
$$\begin{array}{r} 9 \\ + \square \\ \hline 10 \end{array}$$

8.
$$\begin{array}{r} 4 \\ + \square \\ \hline 4 \end{array}$$

FIND THE ANSWERS HERE

8
9
3
5
6
0
1
7

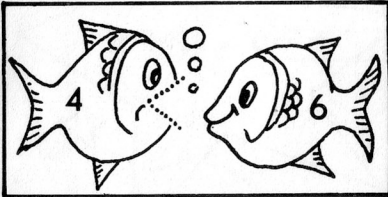
Next time do computer lesson "ADD 11".

FINISH THE FISH!

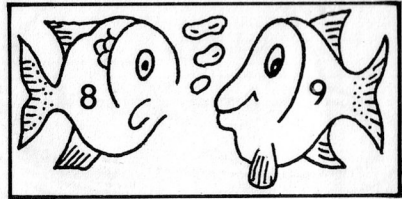
Do this page after computer lesson "ADD 12".

Put the right sign on the fish. Make each pair of fish say a true fact.

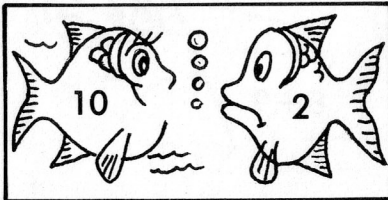
1.



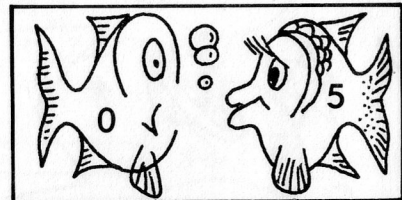
2.



3.



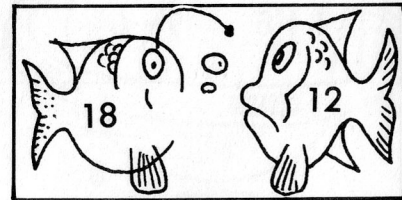
4.



5.



6.



>

GREATER
THAN

<

LESS
THAN

Next time do computer lesson "ADD 13".

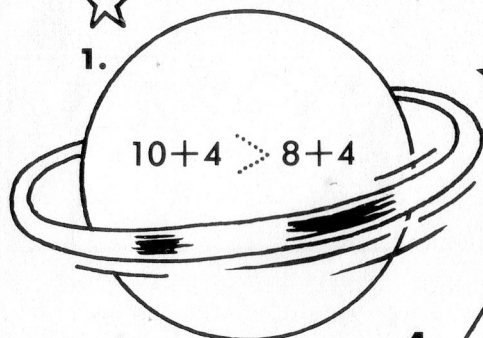
WHAT'S YOUR SIGN?

Do this page after computer lesson "ADD 13".

Put the right sign in each problem.

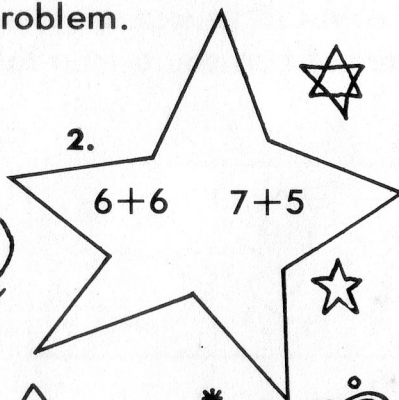


1.



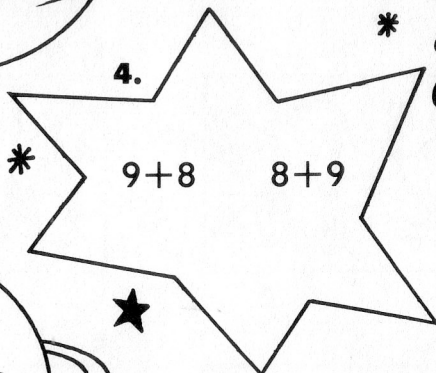
$$10+4 \quad \triangleright \quad 8+4$$

2.



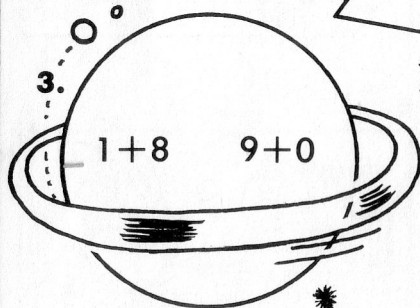
$$6+6 \quad 7+5$$

4.



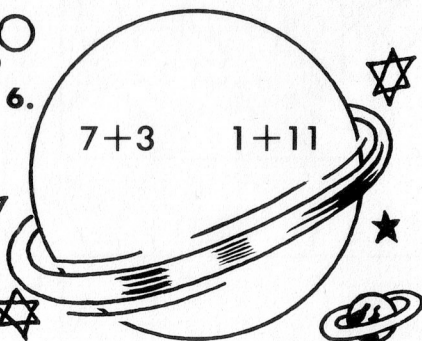
$$9+8 \quad 8+9$$

3.



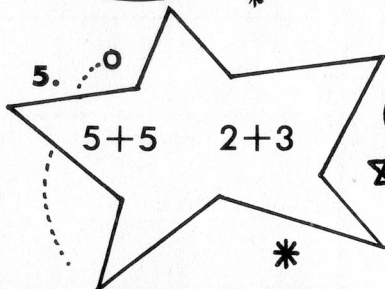
$$1+8 \quad 9+0$$

6.



$$7+3 \quad 1+11$$

5.



$$5+5 \quad 2+3$$

> GREATER
THAN

< LESS
THAN

= EQUAL
TO

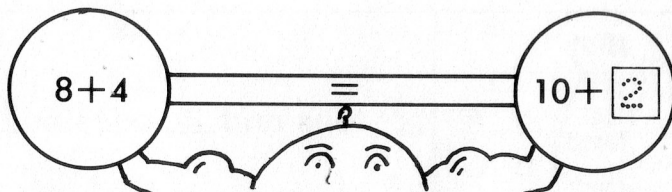
Next time do computer lesson "ADD 14".

STRONG PEOPLE!

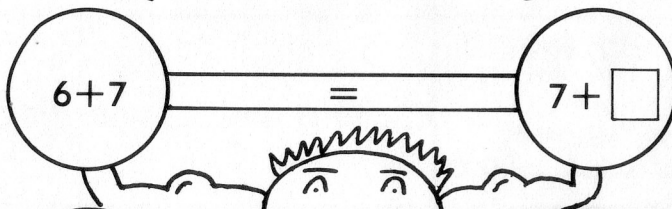
Do this page after computer lesson "ADD 14".

Balance the weights. Put the right number in each one.

1.



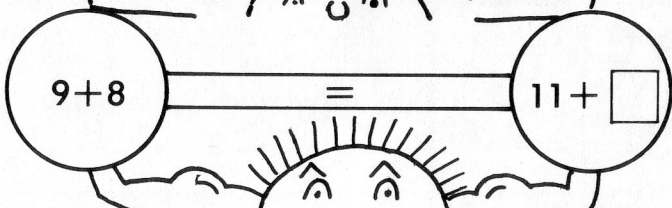
2.



3.



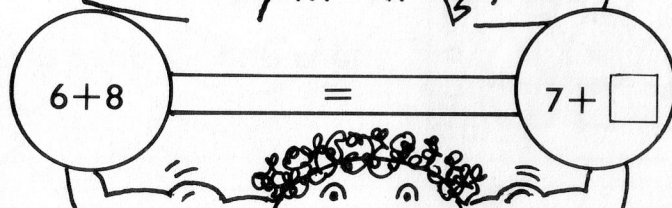
4.



5.



6.



Next time do computer lesson "ADD 15".

TENS AND ONES

Do this page after computer lesson "ADD 16".

How many marbles in each picture? Put in the right numbers.

1.



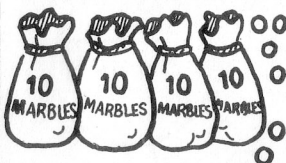
2 tens and 4 ones or 24

2.



___ tens and ___ ones or ___

3.



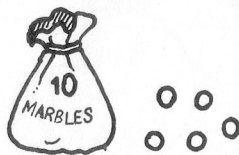
___ tens and ___ ones or ___

4.



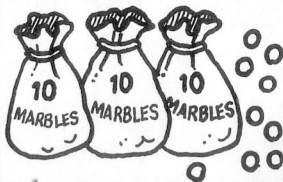
___ tens and ___ ones or ___

5.



___ tens and ___ ones or ___

6.



___ tens and ___ ones or ___

Well done. You have finished all the addition.

PICTURE PUZZLE

Do this page after computer lesson "SUB 1".

Do these problems. Shade in the answers in the shade-in puzzle. Who is in the picture?

$$\begin{array}{r} 1. \quad 8 \\ - 2 \\ \hline 6 \end{array}$$

$$\begin{array}{r} 2.9 \\ -7 \\ \hline \end{array}$$

$$\begin{array}{r} 3.6 \\ -1 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 5 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 7 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 4 \\ - 4 \\ \hline \end{array}$$

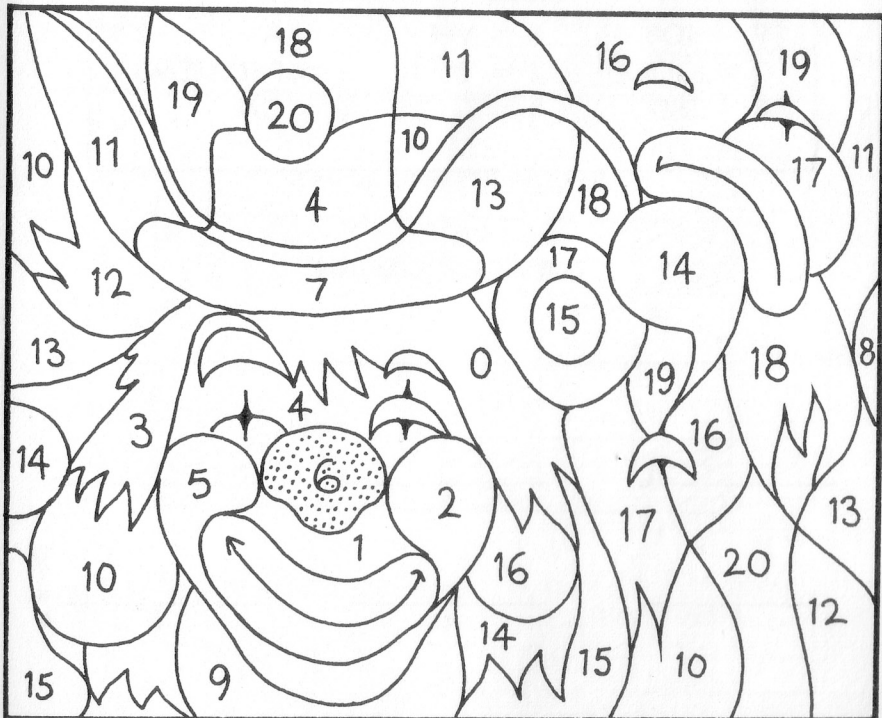
7. 7
-4

$$\begin{array}{r} 8. \quad 8 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 9 \\ -5 \\ \hline \end{array}$$

10. 9
—0

SHADE-IN PUZZLE



Next time do computer lesson "SUB 2".

FIND THE SECRET MESSAGE!

Do this page after computer lesson "SUB 2".

Do these problems. Use the answers to get the words from the word box.

$$\begin{array}{r} 1. \quad 12 \\ -3 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 2. \quad 11 \\ -4 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 16 \\ -8 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 12 \\ -6 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 10 \\ -8 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 14 \\ -9 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 10 \\ -9 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 11 \\ -8 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 12 \\ -8 \\ \hline \end{array}$$

WORD BOX

9 = JOB

7 = GOOD

8 = DID

6 = VERY

2 = YOU

5 = THESE

1 = A

3 = PROBLEMS

4 = ON

THE SECRET MESSAGE

problems:	<u> </u> 5	<u> </u> 3	<u> </u> 7
	<u> </u> 4	<u> </u> 2	<u> </u> 1
	<u> </u> 9	<u> </u> 6	<u> </u> 8

JOB

!

Next time do computer lesson "SUB 3".

CROSS-NUMBER PUZZLE

Do this page after computer lesson "SUB 4".

Do these problems. Put the answers in the cross-number puzzle.

ACROSS

$$\begin{array}{r} 1. \quad 87 \\ - 32 \\ \hline 55 \end{array}$$

$$\begin{array}{r} 7. \quad 89 \\ - 26 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 66 \\ - 26 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 97 \\ - 43 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 67 \\ - 53 \\ \hline \end{array}$$

DOWN

$$\begin{array}{r} 1. \quad 93 \\ - 42 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 36 \\ - 13 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 78 \\ - 24 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 39 \\ - 15 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 88 \\ - 41 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 71 \\ - 11 \\ \hline \end{array}$$

CROSS-NUMBER PUZZLE



Next time do computer lesson "SUB 5".

A MAZE

Do this page after computer lesson "SUB 5".

Find your way through the maze. Check each answer. Draw a line from right answer to right answer.

START



$$\begin{array}{r} 548 \\ -23 \\ \hline 525 \end{array}$$

$$\begin{array}{r} 675 \\ -31 \\ \hline 644 \end{array}$$

$$\begin{array}{r} 929 \\ -13 \\ \hline 916 \end{array}$$

$$\begin{array}{r} 821 \\ -10 \\ \hline 831 \end{array}$$

$$\begin{array}{r} 136 \\ -13 \\ \hline 323 \end{array}$$

$$\begin{array}{r} 978 \\ -28 \\ \hline 950 \end{array}$$

$$\begin{array}{r} 257 \\ -26 \\ \hline 231 \end{array}$$

$$\begin{array}{r} 289 \\ -37 \\ \hline 266 \end{array}$$

$$\begin{array}{r} 367 \\ -31 \\ \hline 764 \end{array}$$

$$\begin{array}{r} 365 \\ -13 \\ \hline 352 \end{array}$$

$$\begin{array}{r} 546 \\ -32 \\ \hline 519 \end{array}$$

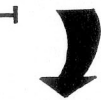
$$\begin{array}{r} 598 \\ -26 \\ \hline 533 \end{array}$$

$$\begin{array}{r} 444 \\ -22 \\ \hline 422 \end{array}$$

$$\begin{array}{r} 265 \\ -15 \\ \hline 255 \end{array}$$

$$\begin{array}{r} 154 \\ -31 \\ \hline 177 \end{array}$$

$$\begin{array}{r} 727 \\ -12 \\ \hline 715 \end{array}$$



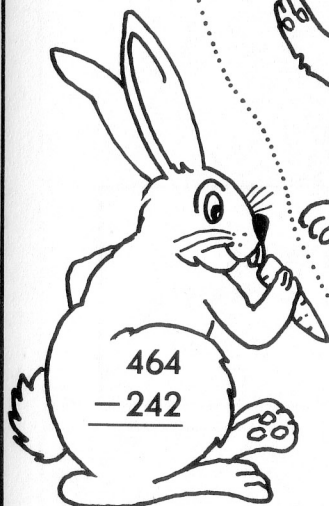
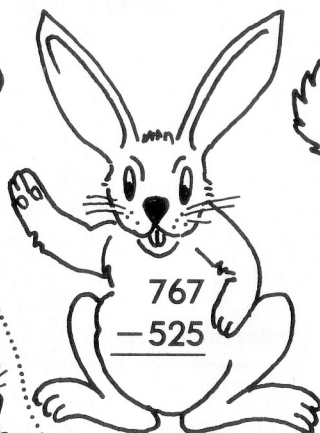
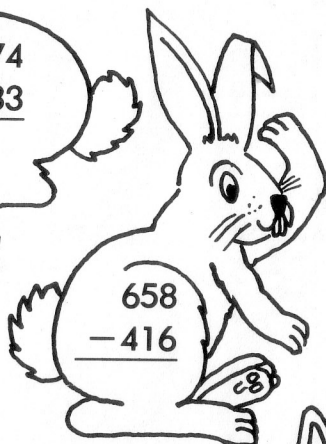
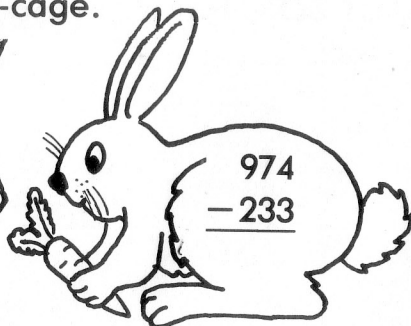
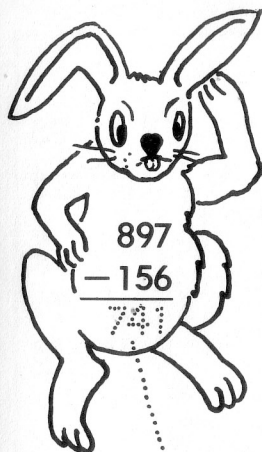
FINISH

Next time do computer lesson "SUB 6".

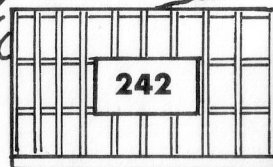
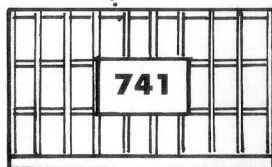
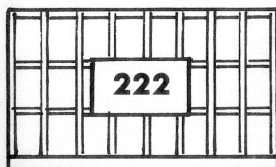
LOST BUNNIES

Do this page after computer lesson "SUB 6".

Do these problems. Take each "bunny" to its correct answer-cage.



ANSWER CAGES



Next time do computer lesson "SUB 7".

FUNNY FACT!

Do this page after computer lesson "SUB 8".

Do these problems. Find the right letters in the FUNNY-FACT BOX. Put them together to find the funny fact.

$$\begin{array}{r} 1. \ 26 \\ -9 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \ 42 \\ -7 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \ 28 \\ -9 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \ 33 \\ -4 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \ 82 \\ -5 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \ 31 \\ -9 \\ \hline \end{array}$$

$$\begin{array}{r} -7. \ 55 \\ -7 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \ 21 \\ -8 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \ 65 \\ -8 \\ \hline \end{array}$$

FUNNY-FACT BOX

17 = N

29 = NK

48 = HA

35 = ELE

77 = A

13 = PHANTS

19 = LES

22 = VE

57 = O

FUNNY FACT !

problems:

2

8

7

6

1

9

5

4

3



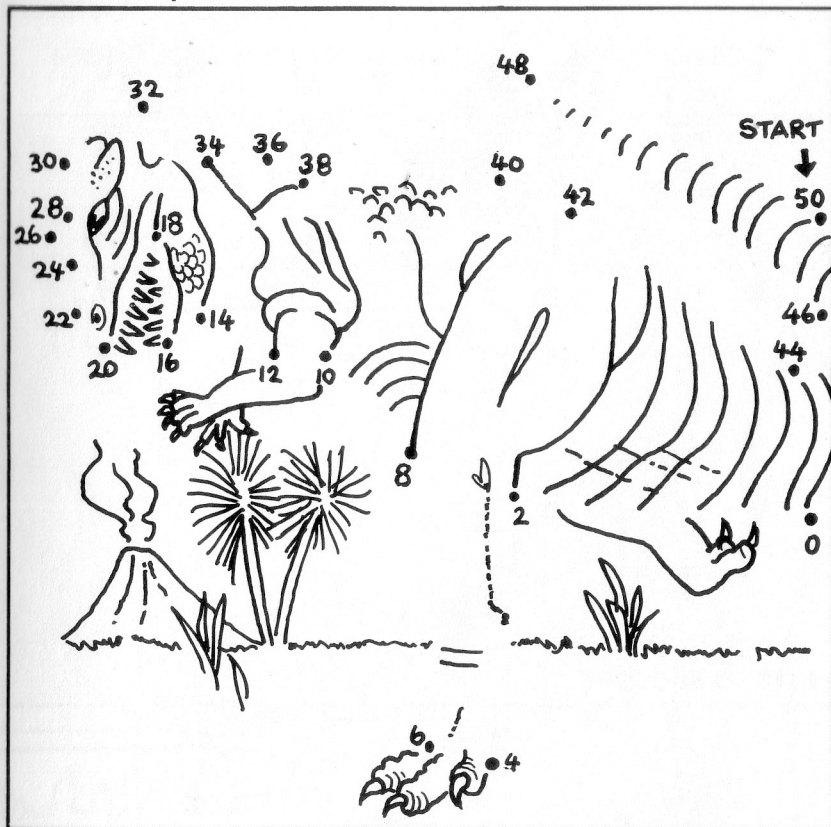
Next time do computer lesson "SUB 9".

WATCH OUT!

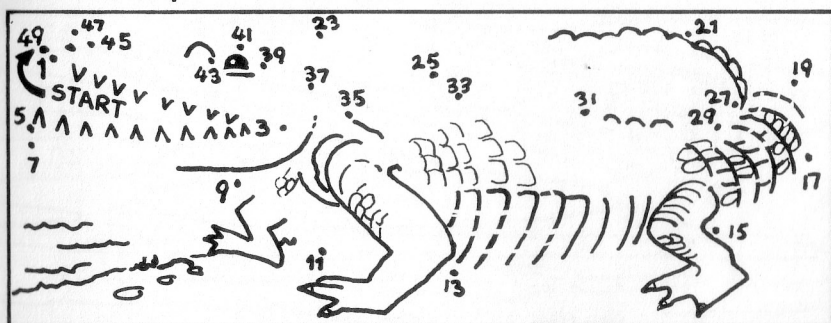
Do this page after computer lesson "SUB 9".

Join the dots. Count backwards by 2's.

Start this picture at 50.



Start this picture at 49.



Next time do computer lesson "SUB 10".

A RACER!

Do this page after computer lesson "SUB 10".

Do these problems. Fill in the answers in the SHADE-IN picture. Can you see the racer?

$$\begin{array}{r} 1. \quad 12 \\ - \boxed{3} \\ \hline 9 \end{array}$$

$$\begin{array}{r} 2. \quad 16 \\ - \boxed{} \\ \hline 8 \end{array}$$

$$\begin{array}{r} 3. \quad 11 \\ - \boxed{} \\ \hline 2 \end{array}$$

$$\begin{array}{r} 4. \quad 10 \\ - \boxed{} \\ \hline 10 \end{array}$$

$$\begin{array}{r} 5. \quad 13 \\ - \boxed{} \\ \hline 6 \end{array}$$

$$\begin{array}{r} 6. \quad 8 \\ - \boxed{} \\ \hline 3 \end{array}$$

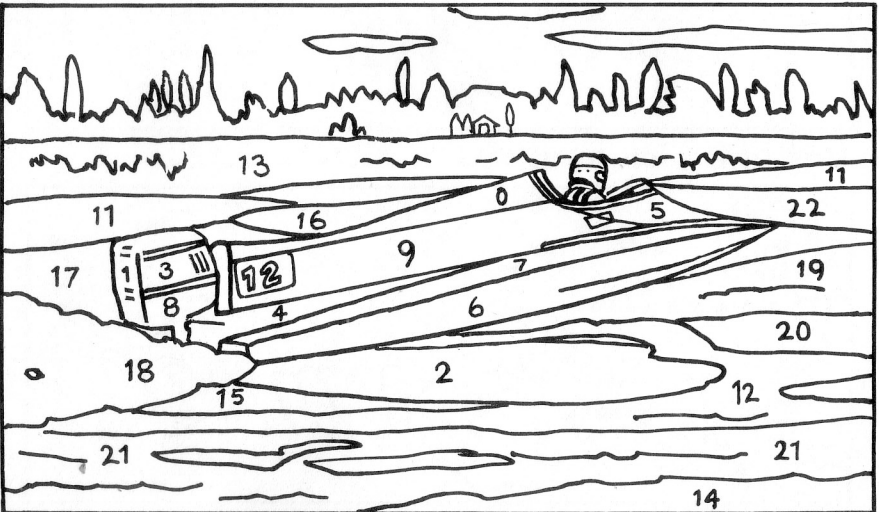
$$\begin{array}{r} 7. \quad 14 \\ - \boxed{} \\ \hline 8 \end{array}$$

$$\begin{array}{r} 8. \quad 9 \\ - \boxed{} \\ \hline 5 \end{array}$$

$$\begin{array}{r} 9. \quad 11 \\ - \boxed{} \\ \hline 9 \end{array}$$

$$\begin{array}{r} 10. \quad 6 \\ - \boxed{} \\ \hline 5 \end{array}$$

SHADE-IN PICTURE



Next time do computer lesson "SUB 11".

A RIDDLE!

Do this page after computer lesson "SUB 12".

Do these problems. Find the missing numbers in the LETTER BOX. Use those letters to discover the answer to the riddle.

WHAT HAS A FACE AND HANDS, BUT NO BODY?

$$\begin{array}{r} 1. \quad 8 \quad \square \\ +3 \quad -8 \\ \hline \square \quad 3 \end{array}$$

$$\begin{array}{r} 2. \quad 9 \quad \square \\ +4 \quad -4 \\ \hline \square \quad 9 \end{array}$$

$$\begin{array}{r} 3. \quad 7 \quad \square \\ +5 \quad -7 \\ \hline \square \quad 5 \end{array}$$

$$\begin{array}{r} 4. \quad 9 \quad \square \\ +6 \quad -6 \\ \hline \square \quad 9 \end{array}$$

$$\begin{array}{r} 5. \quad 5 \quad \square \\ +4 \quad -4 \\ \hline \square \quad 5 \end{array}$$

LETTER BOX

9 = H	13 = A
11 = W	15 = C
12 = T	

ANSWER: A

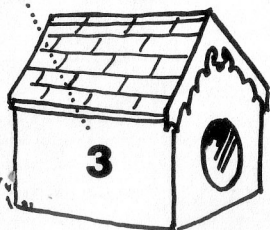
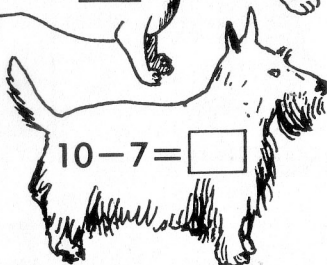
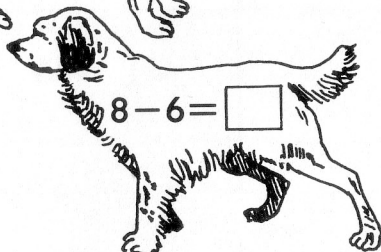
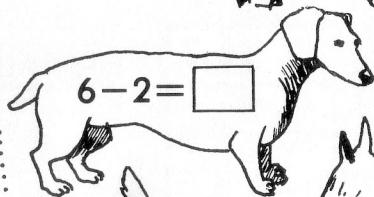
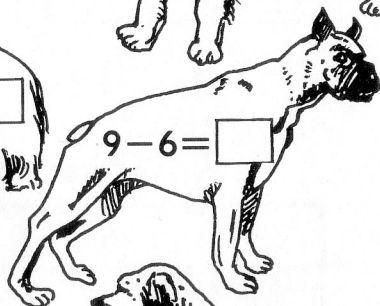
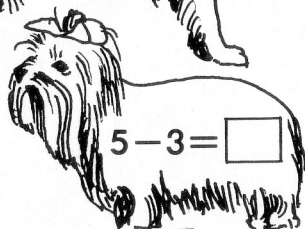
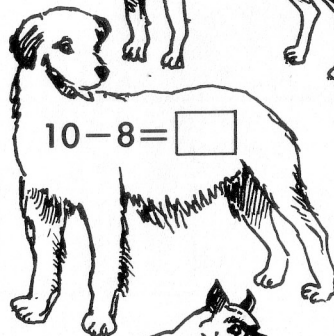
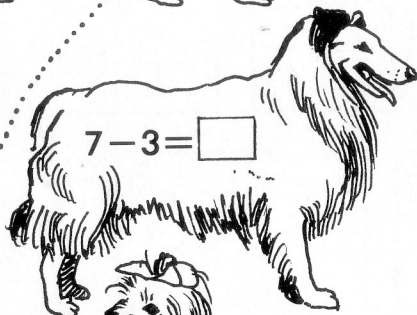
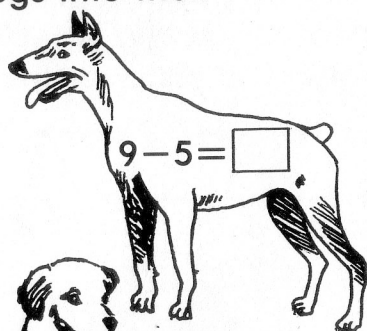
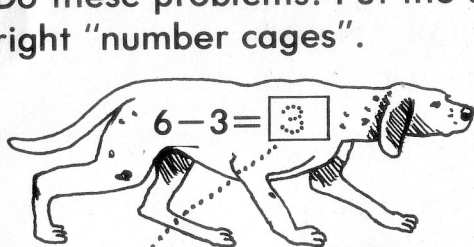
1 2 3 4 5

Next time do computer lesson "SUB 13".

PUT THEM AWAY!

Do this page after computer lesson "SUB 13".

Do these problems. Put the dogs into their right "number cages".

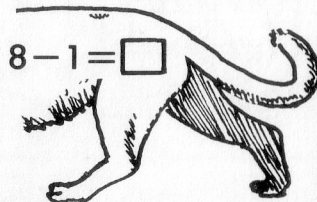
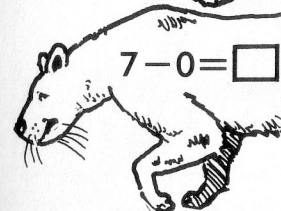
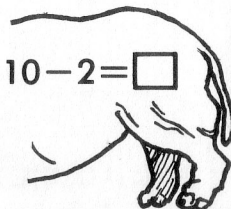
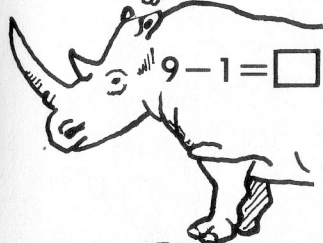
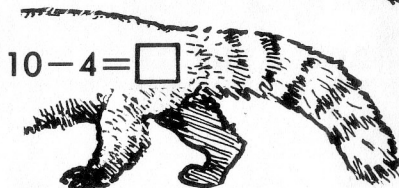
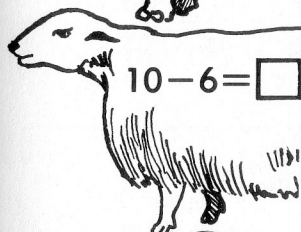
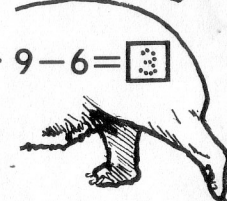
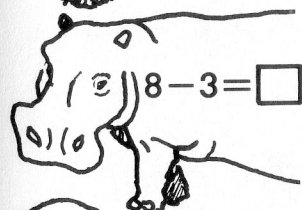
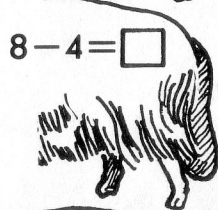
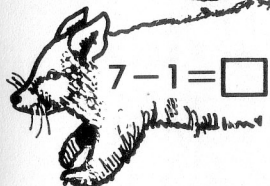
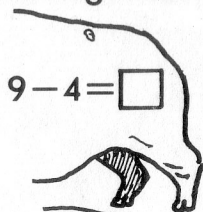
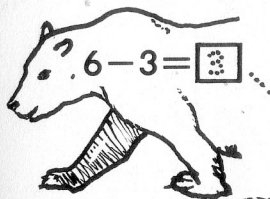


Next time do computer lesson "SUB 14".

PUT THEM TOGETHER!

Do this page after computer lesson "SUB 14".

Do these problems. Match the animal parts, with the same answers. Put the animals together.



Next time do computer lesson "SUB 15".

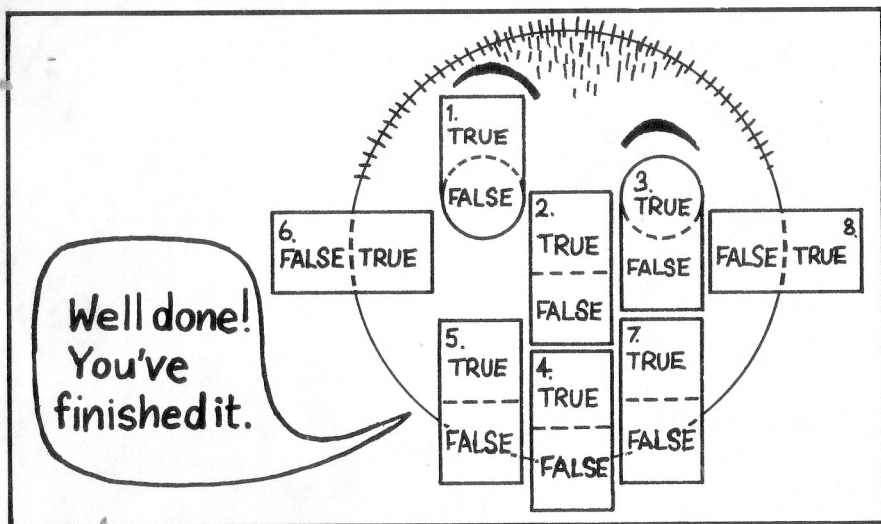
TRUE OR FALSE?

Do this page after computer lesson "SUB 16".

Check these problems. Are they TRUE or FALSE? Circle the correct word. Shade the correct part in the shade-in puzzle.

- | | |
|----------------------|---------------|
| 1. $6 - 4 = 3 - 2$ | TRUE or FALSE |
| 2. $9 - 6 = 7 - 4$ | TRUE or FALSE |
| 3. $10 - 1 > 6 - 4$ | TRUE or FALSE |
| 4. $8 - 6 < 8 - 2$ | TRUE or FALSE |
| 5. $7 - 2 = 9 - 4$ | TRUE or FALSE |
| 6. $10 - 7 > 10 - 2$ | TRUE or FALSE |
| 7. $5 - 0 < 9 - 0$ | TRUE or FALSE |
| 8. $4 - 1 > 8 - 7$ | TRUE or FALSE |

SHADE-IN PUZZLE

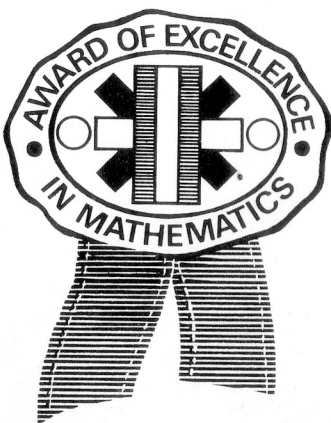


Well done! You have finished book 1.

This is to Certify that

has successfully completed

Mathematics _____



Teacher

**SELF-TEACHING SOFTWARE
FOR THE ZX81
AND T/S1000 COMPUTERS**

MATHEMATICS 1

THIS PACKAGE CONTAINS:

- ★ A TOTAL MATH SKILLS PROGRAM
- ★ 32 COMPLETE, SELF-GUIDING COMPUTER MATH LESSONS
- ★ A 32 PAGE MATH WORKBOOK

EACH MATH LESSON IS:

- ★ TAUGHT ON THE COMPUTER
- ★ TESTED BY THE COMPUTER
- ★ RETAUGHT BY THE COMPUTER IF NEEDED
- ★ TESTED IN PRINT IN THE WORKBOOK

EACH WORKBOOK PAGE IS EITHER:

- ★ A PUZZLE
- ★ A GAME
- ★ A RIDDLE

**THE UNIQUE FAST LOAD SYSTEM LOADS EACH 16K LESSON IN
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